

HUMAN EXCRETA & SOLID WASTE

Toilet System

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- Hand Wash
- Toilet Clean Up
- Human Waste Disposal

Solid Waste

- Handling and Storage
- Solid Waste Disposal

QUIZ



HUMAN EXCRETA & SOLID WASTE

TOILET SYSTEM

Most backcountry operations are required to provide portable toilets for guests, and dispose of the human excreta at the end of a trip. Portable toilets come in a variety of designs. A common design is where an ammo container is modified into a toilet, as shown in Figure 1.



Figure 1.

The ammo container toilet design has a modified toilet seat that extends inside the container so there are no air gaps between the seat and container. The toilet seat is usually constructed of a solid plastic material, and the toilet seat “bumpers” are removed to provide a fly-tight fit.

The inside of the ammo container that holds human excreta is finished with a smooth, washable and durable material, such as commercial-type paint, so it is easy to clean when the container is emptied.

All of the toilet chemicals and equipment are stored in another ammo container, which is located nearby the toilet set up when it is in use. This extra container is used to store:

- Disinfectants for clean up
- Chemicals that are used in the toilet to assist with digestion of the waste
- Toilet paper
- Toilet brushes
- Chemical gloves
- Soap

When the toilet system is not in use, the toilet seat is removed from the base container and placed in a garbage bag to be stored in the second ammo container. The toilet brush is stored in a separate bag alongside the toilet seat in the second container. The lids for both ammo containers are placed and clamped to prevent spillage during the trip.

Hand Wash Facility

A hand wash facility must be located nearby a toilet facility to promote good hygiene and to prevent the spread of contagious diseases during a backcountry trip. This hand wash facility must be similar in design as the one described in the Food Section of this manual. A hand wash set up must be pump operated or gravity fed. There must be a reservoir for clean water as well as a container to catch the dirty hand wash water.



A toilet facility must also have dispensed soap; however, paper towels are optional at this hand wash facility (unlike the one located in a food preparation area).

Toilet Clean Up

A backcountry operator must take steps to protect themselves from exposure to human waste during the cleaning and packing of a toilet. The following is an outline of the proper steps:

1. Protective eye ware must be worn to protect an operator's eyes from exposure to human waste
2. Chemical gloves must be worn to protect hands, wrists and lower arms from exposure
3. Spilled waste on toilet seats, outside surfaces of the toilet, or on the ground must be cleaned, the area disinfected with a virucide and dispose excreta inside the toilet (Do not dispose excreta on the ground or in surface water!)
4. Disinfect the toilet seat and any other attachments with a virucide before storing
5. Place toilet lid on toilet and clamp
6. Place toilet seat and toilet brush in bags and place them in the toilet equipment container
7. Disinfect gloves and place them in the toilet equipment container and place lid on the container
8. Wash hands, wrists and arms thoroughly for at least 20 seconds with soap and water. Also, wash any other part of the body that may have been exposed to excreta

■ Human Excreta Disposal

The disposal of human excreta or waste is regulated by the federal Resource Conservation and Recovery Act (RCRA) and the Clean Water Act⁽¹⁶⁾. These regulations require human waste to be properly disposed to protect human health. It is prohibited to dump waste on the ground, in surface waters, or in a landfill. Proper disposal requires human waste to be disposed at an approved wastewater treatment plant or approved on site wastewater system.

Some backcountry operations have an approved onsite wastewater disposal system to handle waste from their backcountry operation. Other backcountry operations take their waste to an approved wastewater treatment facility, or have a permitted septic pumper dispose of the waste for them.

SOLID WASTE

Backcountry operations are required to carry waste out from a trip. It is prohibited to dump waste anywhere except at an approved solid waste facility! The following two sections cover requirements for solid waste.

■ Handling and Storage

Containers and bags must be taken on a trip for solid waste storage. If possible, solid waste should be separated by type, especially if waste is recycled after a trip. Putrescible waste must be stored in a water-resistant container, and stored where wild animals cannot access it.



Non-rotting waste may be divided into 4 groups: aluminum, paper, plastic and glass. The non-rotting wastes may be stored in garbage bags where animals cannot get to them.

Solid waste must be stored in a safe place; never in close proximity to food and food equipment!

■ Solid Waste Disposal

The federal government regulates the disposal of solid wastes. Backcountry operators must carry out all solid waste from a trip and have it properly disposed at an approved landfill, other approved site, or recycled at an approved facility⁽¹⁸⁾.

